

AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A process for obtaining carbon nanotubes bound to at least one of nanometric and/or micrometric-sized ceramic supports and nanometric and/or micrometric-sized carbon fiber supports, said process comprising by growth, using the CVD method, on nanoscale/microscale supports, characterized in that it comprises:

—the addition contacting the supports with a mixture of a carbon source compound as carbon source containing and a catalyst, into a stream of inert gas and hydrogen, the step of contacting being effected by chemical vapor deposition (CVD).

2. (Currently Amended) The process as claimed in claim 1, further comprising characterized in that it also comprises:

—the heating, in a reaction chamber, the at least one nanometric and/or micrometric-sized ceramic supports and nanometric and/or micrometric-sized carbon fiber supports of a nanoscale/microscale ceramic material or of carbon fibers, to a temperature of 600-1100°C, in [[a]]the stream of inert gas;

—the cooling [[of]] the chamber down to room temperature; and

—the recovery of recovering the product formed carbon nanotubes bound to the at least one of nanometric and/or micrometric-sized ceramic supports and nanometric and/or micrometric-sized carbon fiber supports.

3. (Currently Amended) The process as claimed in claim 2, wherein the at least one of nanometric and/or micrometric-sized ceramic supports and nanometric and/or

micrometric-sized carbon fiber supports -characterized in that the ceramic material is in the form of nanoscale/microscale particles or fibers.

4. (Currently Amended) The process as claimed in claim 3, wherein the at least one of nanometric and/or micrometric-sized ceramic supports and nanometric and/or micrometric-sized carbon fiber supports characterized in that the ceramic material is formed from the following: carbon fibers; glass fibers; SiC particles and fibers, TiC particles and fibers, Al₂O₃ particles and fibers, SiO₂ particles and fibers, [(or)] B₄C particles and fibers; silica fume; clays (clay particles); or wires comprising a metallic material such as Fe, Ni, Co, Ti, Pt, Au, Y, Ru, Rh, Pd, Zr, Cr or Mn.

5. (Currently Amended) The process as claimed in claim 1, wherein the characterized in that the compound as carbon source compound is a chosen from the following: liquid hydrocarbon or a hydrocarbons of the group comprising xylene, toluene and benzene; or n-pentane; or alcohols, such as ethanol and methanol; or ketones, such as acetone; or, as a variant, the compound as carbon source is a gaseous hydrocarbon or a such as acetylene, methane, butane, propylene, ethylene and propene; or the compound as carbon source is solid, such as for example campher.

6. (Currently Amended) The process as claimed in claim 1, wherein characterized in that the catalyst is an chosen from the group comprising the following: an iron metallocene, a cobalt metallocene, [(or)] a nickel metallocene, an ; or else iron nitrate, a cobalt nitrate, a [(or)] nickel nitrate[[s]], an iron acetate, a cobalt acetate, a nickel acetate, an iron sulfate, a cobalt sulfate, and a nickel sulfateacetates or sulfates, especially Fe(II), phthalocyanine (FePc) and iron pentacarbonyl (Fe(CO)₅).

7. (Currently Amended) The process as claimed in claim 1, wherein
~~characterized in that~~ the catalyst and the carbon source compound as ~~carbon source~~
are used in an amount from 0.001 to 0.1 g of catalyst per ml of compound.

8. (Currently Amended) The process as claimed in claim 1, wherein
~~characterized in that~~ the ratio of inert gas to hydrogen is 5/95 to 50/50.

9. (Currently Amended) The process as claimed in claim ~~[[1]]~~2, further
comprising~~characterized in that, before said step of heating, depositing a silicon~~
compound on the surface of said at least one supports~~the support material, a silicon-~~
~~containing compound is used under conditions allowing silicon or a silicon derivative,~~
such as SiC, SiO or SiO₂, to be deposited on the surface of the support material.

10. (Currently Amended) The process as claimed in claim 9, wherein
~~characterized in that the silicon-containing compound used~~ the silicon compound is SiO₂,
or a silane, such as SiCl₄.

11. (Currently Amended) A multiscale product comprising carbon nanotubes
bound to at least one of nanometric and/or micrometric-sized ceramic supports and
nanometric and/or micrometric-sized carbon fiber supports~~Products thus obtained by~~
the process as claimed in claim 1, ~~characterized in that they are multiscale composites~~
~~formed from carbon nanotubes bonded to nanoscale/microscale carbon fiber or ceramic~~
~~fiber support materials.~~

12. (Currently Amended) The multiscale product of claim 11 further comprising
Multiscale composites, characterized in that they comprise carbon nanotubes bonded to
nanoscale/microscale supports in a polymer, a metal or a ceramic matrix.

13. (new) The process as claimed in claim 4 wherein said metallic material is Fe, Ni, Co, Ti, Pt, Au, Y, Ru, Rh, Pd, Zr, Cr or Mn.

14. (new) The process as claimed in claim 5, wherein the carbon source compound is an alcohol or a ketone.

15. (new) The process as claimed in claim 5 wherein the carbon source compound is selected from the group consisting of xylene, toluene, benzene, n-pentane; ethanol, methanol; acetone, acetylene, methane, butane, propylene, ethylene, propene and camphor.

16. (new) The process as claimed in claim 1 wherein the catalyst is Fe(II) phthalocyanine (FePc) or iron pentacarbonyl ($\text{Fe}(\text{CO})_5$).

17. (new) The process as claimed in claim 9 wherein the silicon compound is SiC, SiO or SiO_2 .